

REMARKS

The specification has been amended to correct minor errors and to improve the form thereof.

Claims 43-46 have been added in order to provide a more adequate basis for protection of the invention.

The objection to the specification under the first paragraph of 35 U.S.C. § 112, as failing to support the claimed invention, is respectfully traversed.

The objection states:

The originally filed specification fails to teach a camera which comprises a first and a second semiconductor memory and a control means for changing the reproducing or recording of the first semiconductor memory (first memory) to the second semiconductor memory (second memory) as now recited in claims 20, 38, 40 and 41. It is noted that the originally filed specification and associated drawings teach a camera (1) which comprises only one semiconductor (2) (IC card) for storing images, not two semiconductors as now recited in claims 28, 38, 40 and 41.

The stated basis for the objection is in error. The attention of the Examiner is invited to the following portions of the original specification:

Indicated at 2 in FIG. 1 is a first storage medium (hereinafter called the IC card) including a SRAM, for example, associated with an internal memory backup battery.

[page 13, lines 21-24]

Internal memory 405 is an SRAM, for example, featuring a short access time. It reads serial data from CCD 401 and stores image data. The internal memory 405 is provided with a working memory area to perform image data processing in addition to an image memory area having a capacity to save at least one frame of photographed image.

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The internal memory 405 also stores image data obtained after a data compression process.

[Page 23, lines 17-25]

Thus, the specification clearly discloses a camera containing two SRAM memories, one being on the IC card 2 and one being the internal memory 405. The attention of the Examiner is respectfully invited to the knowledge of one of ordinary skill in the art, as represented by:

The memory 40 is a semiconductor memory such as an IC memory....

[U.S. Patent 5,067,029, column 3, lines 35-36]

Betty Prince, Semiconductor Memories, A Handbook of Design, Manufacture, and Application, Second Edition, pages 149-166, John Wiley & Sons, New York, 1991.

A copy of the pages 149-166 of the cited book is enclosed for the convenience of the examiner.

Thus, one of ordinary skill in the art recognizes that the SRAM in the present specification is a semiconductor memory.

With regard to the control means for changing the reproducing or recording of the first semiconductor memory (first memory) to the second semiconductor memory (second memory), the attention of the Examiner is respectfully invited to the following portions of the present specification:

A buffer 409 is provided between the internal memory 405 and IC card 2 to temporarily store the image data outputted from the internal memory 405. Address controller 410 generates read and write address signals to cause the contents of the buffer 409 to be outputted and written on the IC card 2.

Controlled by CPU 301, gate 411 switches connections between the internal memory 405, or IC card 2, and the processor 407, or connects the internal memory 405 to the IC card 2. Indicated at 413 is an A/D converter which converts the analog signal derived from the WB sensor 412 into a digital signal. Indicated at 210 is a built in battery of the IC card 2.

[page 25, lines 13-25]

Upon completion of the above exposure process, CPU 301 switches the address controller 406 causing it to output a serial signal. CPU 301 also outputs a read enable signal to CCD-TG 402. Consequently, the image data read into CCD 401 is transferred to the internal memory 405. When data transfer has been finished, CPU 301 switches the address controller 406 to the processor side 407 to perform communications. CPU 301 then outputs command signals to apply signal processing such as WB correction, γ correction as well as data compression to the image data as detailed later in FIG. 7. After these signal processing steps, the image data is stored again in the internal memory 405.

In case the IC card 2 is set ready to store the image data, CPU 301 connects the internal memory 405 to the IC card 2 by switching the gate 411. Also, CPU 301 outputs an address signal to both address controllers 406 and 410. As a result, the image data in the internal memory 405 is transferred into the IC card 2 via the buffer 409.

[page 26, line 12 through page 27, line 6]

Print operation is started when CPU 301 detects a print start command in the print mode. When printing an image stored on the IC card 2, the address controller 414 causes the compressed data of the print image to be transferred from the IC card 2 to a specified area of the work memory 416. On the other hand, when an image stored in the internal memory 405 is printed directly, a frame of print image in the internal memory 405 is selected by the address controller 406 and transferred in the work memory 416 via the gate 411 and processor

416. Next, CPU 301 sends a command to the processor 415 requesting it to carry out signal processing for printing.

[Page 29, line 22 through page 30, line 9.]

Thus, the present specification describes processing image data and then either storing the processed image data in the internal memory 405 or in the IC card 2. Similarly, the present specification describes reading image data from either the internal memory 405 or the IC card 2 for the purpose of reproducing that image data via the printer which is part of the camera.

Accordingly, it is respectfully requested that the objection to the specification be reconsidered and withdrawn.

The rejection of claims 20-22, 33, 34, and 38-42 under the first paragraph of 35 U.S.C. § 112, for the reasons set forth in the objection to the specification, is respectfully traversed for the same reasons set forth in the response to the objection to the specification. Accordingly, it is respectfully requested that the rejection be reconsidered and withdrawn.

The rejection of claims 23, 24, 35, and 36 under 35 U.S.C. § 102(e), as having been anticipated by Takeuchi et al, U.S. Patent 4,888,648, for the same reason as set forth in the previous office action, is respectfully traversed.

Claims 23, 24, 35, and 36 are directed to a camera, while the Takeuchi et al apparatus, which is an electronic album or image storage device, does not

include a camera. With regard to lines 1-5 of column 3 of the Takeuchi et al patent, cited by the Examiner, the image reader 4 is not considered to be a camera. However, even if image reader 4 were to be considered to be a camera, the "electronic album" is not part of that image reader.

The Takeuchi et al apparatus has an objective of being able to read image data from any one of a disk read 1, a video interface 3, and an image reader 4, processing that image data and then storing the processed data on a high capacity file 10 such as an optical disc. This is not the same as the objective of the present invention which provides a camera with two storage memories and a control system which can read new image data into either of the storage memories or read image data from either of the storage memories for reproducing the image data. The present invention provides an advantage in that, if during phototaking the IC card 2 becomes saturated with recorded picture data, the next frame can be stored on the internal memory rather than overwriting data on the IC card 2. This is not disclosed by the Takeuchi et al patent.

The display 9 of the Takeuchi et al patent does not qualify as a camera viewfinder.

Accordingly, it is respectfully requested that the rejection of claims 23, 24, 35, and 36 under 35 U.S.C. § 102(e), as having been anticipated by Takeuchi et al, U.S. Patent 4,888,648, for the same reason as set forth in the previous office action, be reconsidered and withdrawn.

The rejection of claims 40 and 42 under 35 U.S.C. § 102(e), as having been anticipated by Orii, U.S. Patent 5,200,863, is respectfully traversed.

While the Orii patent does disclose a memory card 24, the second memory 26a, cited by the Examiner, is a video tape recorder, which neither constitutes nor suggests the use of two semiconductor memories in the camera.

Accordingly, it is respectfully requested that the rejection of claims 40 and 42 under 35 U.S.C. § 102(e), as having been anticipated by Orii, U.S. Patent 5,200,863, be reconsidered and withdrawn.

The rejection of claim 25 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Takeuchi et al, U.S. Patent 4,888,648, in view of Watanabe et al, U.S. Patent 5,032,927, for the same reason set forth in the previous office action, is respectfully traversed.

While the Watanabe patent discloses an electronic still camera capable of storing image signals on a semiconductor memory in the form of a card, it does not have two semiconductor memories, or a changer means for changing over the recording of image data on one of the two semiconductor memories to the other of the two semiconductor memories.

The use of two semiconductor memories in the camera of the present invention permits the camera to have a simple construction and to be readily portable.

Claim 25 recites that the first memory is an IC card and provides for reproduction means for reproducing the contents recorded in that first memory. This arrangement permits the portability of the camera to be maintained, while providing for efficient storage of image data in the IC card and the versatility of a reproducing means being able to reproduce image data from either of the storage memories. These advantages are not achievable from the Takeuchi et al patent or the Watanabe et al patent, taken either singly or in any combination thereof.

Accordingly, it is respectfully requested that the rejection of claim 25 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Takeuchi et al, U.S. Patent 4,888,648, in view of Watanabe et al, U.S. Patent 5,032,927, for the same reason set forth in the previous office action, be reconsidered and withdrawn.

The rejection of claims 31, 32, and 37 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Takeuchi et al, U.S. Patent 4,888,648, in view of Watanabe et al, U.S. Patent 5,032,927, for the same reason set forth in the previous office action, is respectfully traversed.

As noted supra, the Takeuchi et al patent is directed to an electronic storage device, not a camera. Thus, the Takeuchi et al "album" does not have the same problems or constraints as a camera, and would not serve as a basis for one of ordinary skill in the art to modify a camera so as to employ two alternate storage

memories in the camera while maintaining the portability of the camera. Similarly, the Takeuchi et al patent does not disclose that the two alternate memories should be semiconductor memories, even though it is the lightweight and small volume required by the semiconductor memories which permit the camera to have good storage capacity while still being readily portable.

While the Watanabe patent discloses an electronic still camera capable of storing image signals on a semiconductor memory in the form of a card, it does not have two semiconductor memories, or a changer means for selectively changing over the recording of image data on one of the two semiconductor memories to recording the image data on the other of the two semiconductor memories.

Claim 31, from which claims 32 and 37 depend, recites, inter alia:

signal processing means for expanding the compressed image signal recorded on the memory card; and

recording means for recording the expanded image signal on the optical disc.

As noted in the previous response, the Takeuchi et al patent does not disclose compression and expansion of an image signal; and while the Watanabe et al patent discloses compression and expansion of an image signal, it does not disclose recording an expanded image on an optical disc. Thus, there is no combination of the Takeuchi et al patent and the Watanabe et al patent which would produce the subject matter of these claims.

Accordingly, it is respectfully requested that the rejection of claims 31, 32, and 37 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Takeuchi et al, U.S. Patent 4,888,648, in view of Watanabe et al, U.S. Patent 5,032,927, for the same reason set forth in the previous office action, be reconsidered and withdrawn.

The rejection of claims 20-23 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Takahashi, U.S. Patent 5,067,029, in view of Lang, et al, U.S. Patent 4,963,995, for the same reason set forth in the previous office action with respect to the Takahashi patent, is respectfully traversed.

The Takahashi patent discloses the use of a memory 40 and an optical card 36. The optical card 36 is not a semiconductor memory. The acknowledgment in the rejection that the Takahashi patent fails to teach that the second medium is a semiconductor memory.

While the Lang patent discloses the use of a semiconductor memory, such disclosure is in terms of an audio/video transceiver apparatus which does not require the lightweight, compact size, and portability of a camera. Such a camera would not be likely to have a video tape or optical disc. Thus, there is no basis in the Lang patent for suggesting that the apparatus of the Takahashi patent could or should be modified to include two semiconductor memories.

With regard to claim 23, the Takahashi patent does not disclose the reproduction means as recited in that claim. Although the comments in the Examiner's Action indicates that the Takahashi apparatus inherently includes a reproducing means since it is required for any recording/reproducing device, there is no citation of any portion of the Takahashi patent in support thereof. A camera is produced for the purpose of photography and is used as a means for taking photographs. A camera does not inherently provide a reproducing means. The allegation that the Takahashi apparatus is inherently provided with a reproducing means is respectfully traversed as being without any foundation in fact.

Moreover, the mere fact that it may be known to use a reproducing device under some circumstances does not constitute a disclosure or suggestion of using a reproducing device which can selectively reproduce data from either of two memories, as required by claim 23.

Accordingly, it is respectfully requested that the rejection of claims 20-23 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Takahashi, U.S. Patent 5,067,029, in view of Lang, et al, U.S. Patent 4,963,995, for the same reason set forth in the previous office action with respect to the Takahashi patent, be reconsidered and withdrawn.

The rejection of claims 33 and 34 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Takahashi, U.S. Patent 5,067,029, in view of Lang, et al, U.S.

Patent 4,963,995, and Finelli et al, U.S. Patent 4,937,676, is respectfully traversed.

The acknowledgment in the rejection that the Takahashi patent fails to specifically teach a finder and a printer is noted with appreciation. However, the mere existence of such items in the Finelli patent does not constitute or suggest the "subject matter as a whole" of claims 33 and 34, which includes the requirement of two semiconductor memories.

Accordingly, it is respectfully requested that the rejection of claims 33 and 34 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Takahashi, U.S. Patent 5,067,029, in view of Lang, et al, U.S. Patent 4,963,995, and Finelli et al, U.S. Patent 4,937,676, be reconsidered and withdrawn.

The rejection of claims 38, 39, and 41 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Orii, U.S. Patent 5,200,863, in view of Sasaki et al, U.S. Patent 5,034,804, is respectfully traversed.

While the Orii patent does disclose a memory card 24, the second memory 26a, cited by the Examiner, is a video tape recorder, which neither constitutes nor suggests the use of two semiconductor memories in the camera, as required by claim 38, from which claim 39 depends.

With regard to claim 41, the acknowledgment, in the rejection that the Orii patent fails to teach that the

second memory is also a semiconductor memory, is noted with appreciation. However, the mere fact, that the Sasaki et al patent may disclose that it is known to use a semiconductor memory device such as an IC card, does not constitute a disclosure or suggestion that two memories should be employed with both memories being semiconductor memories.

Accordingly, it is respectfully requested that the rejection of claims 38, 39, and 41 under 35 U.S.C. § 103 as having been obvious, to one of ordinary skill in the art at the time of the invention, from Orii, U.S. Patent 5,200,863, in view of Sasaki et al, U.S. Patent 5,034,804, be reconsidered and withdrawn.

The statement, that regarding claims 38 and 39, the limitations of claims are similar to claims 40-42, therefore claims 38-39 are rejected for the same reason as applied to claims 40-42, is not understood. The section of the Examiner's Action in which this statement is made is a rejection of claims 38 and 39 as having been obvious from Orii in view of Sasaki et al, while the only rejection of claims 40 and 42 is as having been anticipated by Orii. Thus, while it does not appear that the statement can constitute a separate rejection, its purpose is unclear.

Wherefore, in view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a notice of allowance are earnestly solicited.

This Amendment results in an increase in the number of independent claims from five to six (claims 20, 23,

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31, 38, 40, and 43) and an increase in the total number of claims from eighteen to twenty-two, but does not present any multiple dependency claim. Accordingly, a check in the amount of \$124 for the 37 CFR 1.16(b) of \$80 for the additional independent claim and the 37 CFR 1.16(c) fee of \$44 for the two claims in excess of twenty, is submitted herewith. However, if the check is not present, is not sufficient, or is not acceptable, please charge any fee (other than an issue fee) required during the pendency of this U.S. patent application to Deposit Account 18-1260. Please credit any overpayment to Deposit Account 18-1260.

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February 20, 1997